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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,556	01/11/2002	Roy Frank Brabson	RSW920010159US1	1822
25259	7590	04/30/2010		
IBM CORPORATION			EXAMINER	
3039 CORNWALLIS RD.			CHANKONG, DOHM	
DEPT. T81 / B503, PO BOX 12195			ART UNIT	PAPER NUMBER
RESEARCH TRIANGLE PARK, NC 27709			2452	
			NOTIFICATION DATE	DELIVERY MODE
			04/30/2010	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ROY FRANK BRABSON, EDWARD GLEN BRITTON,  
WESLEY MCMILLAN DEVINE, LAP THIET HUYNH,  
DAVID B. LINDQUIST, BALA RAJARAMAN,  
and ARTHUR JAMES STAGG

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Appeal 2008-000932  
Application 10/045,556  
Technology Center 2400

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Decided: April 28, 2010

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Before JOHN A. JEFFERY, ROBERT E. NAPPI, and ST. JOHN  
COURTENAY III, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the rejection of claims 1 through 21 and 23.

We affirm-in-part and enter a new rejection against claim 23.

#### INVENTION

The invention is directed to method of improving quality of service in a data network during heavy traffic flow by dynamically modifying the behavior of executing applications. See pages 8 and 9 of Appellants' Specification. Claim 1 is reproduced below:

1. A method of improving traffic management in a computing network, comprising steps of:
  - detecting a changed environmental condition;
  - generating a notification of the detected condition;
  - analyzing the generated notification by consulting one or more criteria; and
  - determining at a currently-executing application, based on the analysis, whether the currently-executing application should modify a behavior of the currently-executing application.

#### REFERENCES

Buhrke	US 5,280,470	Jan. 18, 1994
Yamato	US 5,835,484	Nov. 10, 1998
Nahidipour	US 5,938,743	Aug. 17, 1999

#### REJECTIONS AT ISSUE

The Examiner has rejected claims 1 through 7, 9 through 12, 17 through 21 and 23 under 35 U.S.C. § 102(b) as being anticipated by Buhrke. The Examiner's rejection is on pages 3 through 7 of the Answer.

The Examiner has rejected claims 1 and 13 through 16 under 35 U.S.C. § 102(b) as being anticipated by Yamato. The Examiner's rejection is on pages 7 and 8 of the Answer.

The Examiner has rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Buhrke in view Nahidipour. The Examiner's rejection is on page 9 of the Answer.

## ISSUES

*Rejection of claims 1 through 7, 9 through 12, 17 through 21, and 23 under 35 U.S.C. § 102(b) as anticipated by Buhrke*

Appellants argue on pages 6 through 9 of the Appeal Brief<sup>1</sup> that the Examiner's rejection of claims 1 through 7, 9 through 12, 17 through 21 and 23 is in error. Appellants assert on page 7 of the Appeal Brief that Buhrke does not teach determining at a currently executing application whether the currently executing application should modify a behavior of the currently-executing application as claimed. Appellants argue that Buhrke teaches a system where the terminal equipment (which the Examiner considers to meet the claimed application) and the switch negotiate quality of service before establishing a virtual channel. Appeal Brief 7. Appellants argue that the determination of whether the quality of service is accepted, which the Examiner is associating with the claimed change in behavior, is made at the switch and not the terminal. Appeal Brief 8.

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<sup>1</sup>. Throughout the opinion, we refer to the Appeal Brief filed January 30, 2007, and Reply Brief filed July 24, 2007.

Thus, Appellants' arguments present us with the issue of whether the Examiner erred in determining the Bührke teaches that a currently-executing application makes a determination to modify its behavior as claimed.

*Rejection of claims 1 and 13 through 16 under 35 U.S.C. § 102(b) as being anticipated by Yamato*

Appellants argue on pages 6 through 9 of the Appeal Brief that the Examiner's rejection of claims 1 and 13 through 16 is in error. Appellants argue that Yamato teaches a cell traffic regulation unit which controls traffic on the network and as such does not teach the currently-executing application making a determination to modify its behavior as recited in claim 1. Appeal Brief 9. Further, Appellants argue that Yamato's cell traffic regulating unit regulates traffic sent between applications but is not a currently executing application. Appeal Brief 10. Appellants clarify this argument in the Reply Brief reasoning that “[s]ince the behavior of the regulation unit is to monitor and regulate, any activity in connection with the monitoring and regulation functions is necessarily not modifying a behavior of the regulation unit, as suggested in the Examiner's Answer.” Reply Brief 4.

Thus, Appellants' arguments directed to the rejection of claims 1 and 13 through 16 present us with the issue: did the Examiner err in determining Yamato's regulating unit teaches a currently-executing application that makes a determination to modify its behavior as claimed?

## FINDINGS OF FACT

1. Buhrke teaches method and apparatus for controlling overload in a data network in which a network switch sends a slow down messages to virtual channels to decrease their data rates. The switch and the terminal requesting the virtual channel negotiate for the allocated bandwidth. Abstract, col. 3, ll. 9-11.
2. Buhrke teaches that when establishing a virtual channel, a terminal will make a request of the switch to provide a requested bandwidth. The switch then responds back to the terminal identifying that the switch, accepts or rejects or proposes acceptable transmission rate. Col. 5, ll. 5-25, col. 5, l. 60-col. 6 l. 21, Figure 2, steps 202, 204, 206, 210, 212, and 216.
3. If the switch identifies a lower acceptable transmission rate than requested by the terminal, the terminal decides to accept or reject the new transmission rate. Buhrke, col. 6, ll. 21-26, and Figure 2, step 218.
4. Buhrke also teaches that once a virtual channel has been established the switch may notify the terminals that it is necessary to throttle the data rate to reduce the load on the switch. This is done by sending a load reduction request to the terminals. Buhrke does not disclose that the terminals make a decision based upon this message, rather they reduce the data rate as instructed by the switch. Col. 5, ll. 34-46, col. 6, ll. 28-48, see also Figure 3.

## ANALYSIS

*Rejection under 35 U.S.C. § 102(b) as anticipated by Buhrke*

Claims 1 through 7, 9 through 12, and 17 through 21

Appellants have persuaded us that Examiner erred in finding that Buhrke teaches a currently executing application that makes a determination to modify its behavior as claimed. Claim 1 recites that a determination is made at a currently-executing application as to whether that application should modify its behavior. The Examiner found that Buhrke's teaching of the terminal determining whether a modification to the control parameter is accepted by the terminal meets the claimed step to determine to modify behavior. Answer 4, 11. We disagree with the Examiner's determination. Claim 1 recites detecting a changed condition and that the determining step is performed based upon an analysis of a notification of the changed condition. Buhrke teaches a system where a terminal negotiates with a network switch to determine the control parameters for establishing a virtual channel. Fact 1. Buhrke teaches a procedure used to establish the virtual channel, as shown in Figure 2, and a procedure to adjust the parameters based upon excess traffic on the virtual channel. See Figure 3. Fact 2 and 4. In the procedure to establish the virtual channel, the terminal determines whether to accept or reject changed control parameters (e.g. see step 218, reduce bandwidth). Fact 3. However, this is not due to changed conditions. In the procedure to adjust parameters based upon excess traffic (changed conditions), the switch—not the terminal—makes the determination of whether to reduce the bandwidth, and there is no step where the terminal accepts or rejects the decision by the switch to reduce the bandwidth.

(accepting adjusting bandwidth usage is what the Examiner appears to equate with modified behavior). Fact 4. Thus, we do not find that Buhrke teaches all of the limitations of independent claim 1. Claims 2 through 7, 9 through 12, and 17 through 21 ultimately depend upon claim 1.

Accordingly, we will not sustain the Examiner's rejection of claims 1 through 7, 9 through 12, and 17 through 21 under 35 U.S.C. § 102(b) as anticipated by Buhrke.

Claim 23

As discussed *infra*, we now reject claim 23 under 35 U.S.C. § 112 second paragraph. Thus, the scope of the claims can not be determined. Our reviewing court has said that it is wrong to rely upon speculative assumptions as to the meaning of claims and to base a rejection of such claims upon prior art. *In re Steele* 305 F.2d 859, 862 (CCPA 1962). Thus, we will not sustain the Examiner's rejection of these claims under 35 U.S.C. § 102(b) as we will not speculate as to the scope of the claims and, as such, cannot determine whether the combination of the references teach the claimed features.

*Rejection of claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Buhrke, in view Nahidipour*

Claim 8 is ultimately dependent upon claim 1, and the Examiner's rejection of claim 8 relies upon the disclosure of Buhrke to teach the limitations of claim 1. The Examiner has not found, nor do we find that Nahidipour teaches or makes obvious the limitations discussed above as missing from the teachings of Buhrke. Accordingly, we will not sustain the

Examiner's rejection of claim 8 for the reasons discussed above with respect to claim 1.

*Rejection under 35 U.S.C. § 102(b) as being anticipated by Yamato*  
Claims 1 and 13 through 16

Appellants have not persuaded us that Examiner erred in determining Yamato's regulating unit teaches a currently executing application that makes a determination to modify its behavior. The Examiner has found that Yamato's regulation unit meets the claimed currently executing application as it makes determinations to modify monitoring parameters based upon analyzing notification of detected changes in conditions. Answer 7 and 12. We concur with the Examiner's findings as we consider the passages of Yamato support the Examiner's findings.

Appellants have not contested the Examiner's factual findings concerning the operation of the regulating unit. Rather, Appellants have asserted that it is not an application as "the behavior of the regulation unit is to monitor and regulate, any activity in connection with the monitoring and regulation functions is necessarily not modifying a behavior of the regulation unit, as suggested in the Examiner's Answer." Reply Brief 4. We are not persuaded by this argument. We note that there is no limitation in claim 1 which defines the changed behavior to not including the activity of monitoring and regulating. Further, this argument basically implies that the behavior being modified can not be the core behavior of the application. However, this is contrary to the examples in Appellants' disclosure which include applications changing their core behavior (see e.g. page 2 of Appellants' Specification identifies that the invention can be used on

applications that transfer files and page 9 of Appellants' Specification identifies that the modification to the application may be the reduction or increase in the data transferred, thus the modified behavior is the core behavior of the application).

Accordingly, Appellants have not persuaded us of error in the Examiner's rejection of claims 1 and 13 through 16 under 35 U.S.C. § 102(b) as being anticipated by Yamato.

*New rejection*

Claim 23 is rejected under 35 U.S.C. § 112, second paragraph on the same basis set forth in *Aristocrat Techs. Austl. Pty Ltd. v. Inter Game Tech.*, 521 F.3d 1328 (Fed Cir 2008).

Claim 23 recites a "means for analyzing the generated notification by consulting one or more criteria; means for determining at a currently-executing application, based upon the analysis, whether the currently-executing application should modify a behavior of the currently-executing application." Thus, claim 23 invokes 35 U.S.C. § 112 sixth paragraph, as it recites the phrase "means for" and corresponding functional language, but does not recite structure for achieving the specified function. *See Altiris Inc. v. Semantec Corp.*, 318 F.3d 1363, 1375 (Fed. Cir. 2003).

In accordance with 37 C.F.R. 41.37(c)(1)(v), Appellants have stated that the "means for analyzing the generated notification by consulting one or more criteria" is shown in Appellants' Figure 19 (block 1925) and, page 45 lines 8-10 of Appellants' originally filed Specification. Block 1925 in Figure 19 is an element in a flow chart titled "adjust system usage." The description on page 45, lines 8-10 simply states "[f]ollowing operation of

Blocks 1920 and 1925, the user application’s change-notification processing suspends to await the next incoming notification (Block 1930).” It appears from Appellants’ Figure 19 that step 1925 is part of an application or program operating on a server. Thus, Appellants have identified that the corresponding structure for the “means for analyzing” is a computer implemented function.

The Federal Circuit has stated that simply disclosing a general purpose computer as the structure to perform the claimed function does not meet the corresponding structure requirement of 35 U.S.C. § 112 sixth paragraph. *Aristocrat*, 521 F.3d at 1333. Rather, “the corresponding structure for a § 112 paragraph 6 claim for a computer-implemented function is the algorithm disclosed in the specification.” *Id* (citing *Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1249 (Fed. Cir. 2005)). Here, Appellants’ Specification does not provide the algorithm for the claimed means for means for analyzing. Appellants’ Specification does not identify the criteria consulted as part of the analyzing or how the criteria is used in analyzing the notification, i.e. Appellants have not identified the algorithm performed by the computer to analyze the generated notification. As such, Appellants have failed to adequately describe sufficient structure for performing the functions claimed.

Claim 23 also invokes 35 U.S.C. § 112 sixth paragraph, as it recites “means for determining at a currently-executing application, based on the analysis whether the currently-executing application should modify a behavior or the currently-executing application.” In accordance with 37 C.F.R. 41.37(c)(1)(v), Appellants have stated that the “means for determining” is shown in Figure 5, block 505 and described on page 20 lines

19-20. Appeal Brief 3. Figure 5, block 505 is shown as part of an application server and is titled “user application”; thus, it appears that the “means for determining” is a computer-implemented function.

Appellants’ Specification, page 20 line 18 to page 21 line 1 states “[f]or ease of reference, the term ‘prioritization action’ is used hereinafter to refer to the action or actions taken by the executing application in response to receiving a notification; a prioritization action may be any of the actions just described.” We fail to see how the passage of the Specification which Appellants cited in the Brief provides any support for the claimed means for determining. We note that Appellants’ Specification, on page 20, lines 13-15 identifies that the action taken by the application may be reducing the amount of data or dropping connections. Appellants’ Specification further states “[t]he appropriate response to a particular notification that may be received according to the present invention is application-dependent, and is outside the scope of the present invention.” Specification 20:16-18. Thus, Appellants’ Specification identifies some of the possible results of the means for determining but does not identify the process by which the response to the notification is selected but rather states that it is “outside the scope of the invention.” Accordingly, we find that Appellants have not identified the algorithm performed by the computer to determining whether the currently executing application should modify its behavior, and as such Appellants have failed to adequately describe sufficient structure for performing the functions claimed.

For the forgoing reasons, we now reject claim 23 under 35 U.S.C. § 112, second paragraph as Appellants Specification does not identify the

corresponding structure for limitations invoking 35 U.S.C. § 112 sixth paragraph.

#### SUMMARY

We will not sustain the Examiner's rejection of claims 1 through 7, 9 through 12, 17 through 21, and 23 under 35 U.S.C. § 102(b) as being anticipated by Buhrke; or the rejection of claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Buhrke, in view Nahidipour. However, we sustain the Examiner's rejection of claims 1, and 13 through 16 under 35 U.S.C. § 102(b) as being anticipated by Yamato. We enter a new rejection against under claim 23 under 35 U.S.C. § 112 second paragraph.

#### ORDER

The decision of the Examiner to reject claims 1, 3 4, 7 through 12, and 16 through 23 is affirmed-in-part.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). This section provides that “[a] new ground of rejection... shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the

examiner....

(2) Request that the proceeding be reheard under § 41.52 by the Board upon the same record....

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

Appeal 2008-000932  
Application 10/045,556

AFFIRMED-IN-PART  
37 C.F.R. § 41.50(b)

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